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Department of  
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Forest Service



Mark Twain  
National Forest,  
Region 9



June 2004

# SCOPING REPORT

## Brushy Creek and Clayton Ridge Prescribed Burn and Cedar Management Project

Project Number: 10402  
Ava/Cassville/Willow Springs Ranger Districts  
Mark Twain National Forest  
Taney County, Missouri

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## I. INTRODUCTION

This scoping report summarizes a proposal for the Clayton Ridge and Brushy Creek Prescribed Fire and Cedar Management Project. The purpose of this report is to inform interested and affected parties of the proposal and to solicit comments on the proposal.

## II. LOCATION, SETTING AND BACKGROUND

The project area is approximately 6,971 acres located in T. 23 N., R. 17 W., Sections 27 – 29, 32 - 34; T.23 N., R. 17 W., Sections 2 – 5, 9 – 11, 14 – 16; Taney County, Missouri. The project area is bound by Glade Top Trail to the south, Skyline Drive to the north, private land to the west and Brushy Creek to the east. The project area comprises District compartments 34, 35, 39 and 40. The Mark Twain National Forest Land and Resource Management Plan (Forest Plan) identifies the area as being in Management Area (MA) 3.3 (6,115 acres) and 6.2 (856 acres).

The project area is located in the White River Hills subsection of the Ozark Highlands State Natural Divisions. The landscape is characterized by long narrow ridges and high knobs with dolomite glades, savannas and open woodland plant communities. The entire project area lies within the Hercules Dolomite Glade/Oak Woodland Knobs (OZ4i) Land Type Association where some of the largest glade complexes in the state occur.

Forty-four percent (3,062 acres) of the project area is represented by glade savanna and dolomite glade plant communities. Twenty-three percent of the area is represented by dry cherty woodlands, twenty-six percent is dry limestone forest, and rest of the area is in bottomland forest. The dominant species found in glades and savannas are little bluestem, Indian grass and prairie dropseed. Other species associated with glades include; sandwort, asters, purple and yellow coneflowers, toadflax, bluets and many other forbs and sedges. The dominant tree species found in savannas and dry woodlands include; post oak, white oak, black oak and eastern redcedar. Approximately 2,614 acres are open to semi-open land. Approximately 1,290 acres are dense cedar stands.

Dominant soils in the area are moderately deep to very shallow, well drained loam and silt loam soils which have formed from local limestone and dolomite bedrock. Knobby-Rock Outcrop and Gasconade-Gatewood Rock Outcrop associations represent approximately sixty-three percent of the project area. Soils are shallow and support poorer hardwoods, eastern red cedar, shrubs, grasses and forbs.

The project lies within the Bull Shoals Lake Section (11010003) of the Upper White River of the Arkansas-White-Red-River of the Lower Mississippi main stem. There are approximately 2 miles of perennial streams and 21 miles of intermittent creeks and ephemeral drainages within the project area. The majority of the streams drain into Brushy Creek which is the only perennial stream in the project. Brushy Creek drains into Beaver Creek which empties into Bull Shoals Lake approximately 13 mile to the west.

The Mark Twain National Forest has been actively implementing principals of restoring fire-adaptive ecosystems in this project area for the past twenty years. The Ava/Cassville/Willow Springs Ranger District has previously prescribed burned four separate areas within this project area. The largest area was the McAdoo Burn (1,683 acres) which has been burned four times since 1976 and represents 24% of this project area. The other burns include Marsh 1, Marsh 2 and Merriman which were accomplished in 1997 and 1998, and represent approximately 23% (1,599 acres) of this project area. In addition, encroaching eastern red cedar was previously mechanically removed from the project area on approximately 310 acres. The objectives of the past prescribed fires and cedar removal activities were to restore and maintain specialized glade and savanna habitats. These objectives were successfully met with little or no negative impacts to the physical or biological resources.

## III. PURPOSE AND NEED AND THE PROPOSED ACTION

The 2001 National Fire Plan laid the foundation for a long-term program to reduce fire risk and restore healthy, fire-adapted ecosystems on the nation's forests and grasslands. One of the guiding principals of the National Fire Plan is to "restore healthy, diverse and resilient ecological systems to minimize uncharacteristically severe fires on a priority

watershed basis through long-term restoration.” This principal is also emphasized in the Presidents 2002 “Healthy Forest Initiative.”

Before 1870, fire frequency in the Hercules glade complex of the Ava unit was approximately one fire every 3.2 years, but fire frequency after 1870 decreased to one fire every 22 years (Guyette and McGinnes 1982). This change in fire frequency is believed to be a result of shifts in cultural land-use practices. As a result, these habitats have become denser due to an increase in woody plant species, in particular, eastern red cedar. Research estimates that openness in glade habitats decreased by 34% between 1938 and 1975 (Kimmel and Probasco 1980, Amelon 1991). The effects of reduced fire frequencies, and the resulting encroachment of woody species decreases the quality and quantity of native grasses, forbs and sedges, changing the species composition, and decrease diversity of native plant communities. The Mark Twain Land and Resource Management Plan (Forest Plan) outlines the management direction for specialized habitats such as glades (Forest Plan, page IV-56).

As these open glades become dominated by eastern red cedar, often referred to as “cedar glades”, the chances of catastrophic wildfire increase dramatically. Approximately 37 % of the project area is in fire regime condition class (FRCC) 2 and 63% in FRCC 3. FRCC is a classification of the amount of departure from the natural regime. FRCC 2 is defined as areas where the fire regimes have been moderately altered from their natural range and have a moderate risk of losing key ecosystem components. Fire frequencies have departed from natural frequencies by one or more return intervals. This result in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation and fuel attributes have been moderately altered from their natural range. If fire is not used as a management tool to maintain FRCC 1 or 2 these glade/savanna habitats would eventually move into FRCC 3. This would result in the eventual loss of key ecosystem components such as species richness and composition, and increases in non-native invasive species.

This project is needed to continue prescribed fire activities and reduce the amount of eastern red cedar for the purposes of maintaining healthy, diverse and viable glade and savanna ecosystems while enhancing wildlife habitats and reducing hazardous fuels.

### **The Role of the Forest Plan**

The Forest Plan, approved in 1986, provides a programmatic framework regarding allocation of land and measures necessary to protect National Forest resources. It describes how different areas of the MTNF should be managed and what resources should be provided by these lands now and in the future. The Forest Plan Final Environmental Impact Statement (FEIS) displays the forest-wide effects of activities such as timber harvest, wildlife habitat management, recreation management and visual resource management. Site-specific effects of those practices to this project are not part of the Forest Plan (FEIS). An environmental assessment will be prepared to analyze site-specific effects of management activities for this project.

The Forest Plan gives management prescriptions designed to accomplish a Desired Future Condition (DFC). The Forest Plan identifies the area in which this project is to occur as MA 3.3 (page IV-107 to 113) and 6.2 (page IV-175 to 184). The emphasis of Management Area 3.3 is grassland management for livestock and wildlife habitat. MA 6.2 emphasizes the management of natural vegetative communities and their successional stages, limited investments to provide motorized and semi-primitive dispersed recreation.

The Forest Plan also provides guidelines for conserving biological diversity on National Forest lands. Vertical diversity of plant and animal communities is maintained by managing for natural communities in varying stages of development. These stages, or habitat conditions, help provide diverse habitats and ecosystems necessary to sustain healthy populations of plants and animals for the Project Area.

One of the goals of the Forest Plan is to implement prescribed fire as a tool for meeting resource management objectives. Ten to twenty percent of the Hercules Glade Land Type Association with MA 3.3 and 6.2 are to be managed in open and semi-open habitats.

### Forest Plan Revision

The Mark Twain National Forest is in the process of revising the existing Land and Resource Management Plan (Forest Plan) for the National Forest. A Notice of Intent to revise the Forest Plan was issued in 2002. As part of this process, various inventories and evaluations are occurring. Additionally, the Forest is in the process of developing alternative land management scenarios that could change the desired future conditions for areas on the Forest or could change the standards and guidelines for managing specific areas. A Draft Environmental Impact Statement (DEIS) will be published in the near future that will disclose the consequences of the different land management direction scenarios considered in detail.

As a result of the Forest Plan revision effort, the Forest has new and additional information beyond that used to develop the existing Forest Plan. This information will be used where appropriate in the analysis of this project to disclose effects of the proposed activities and any alternatives developed in detail.

Decisions associated with the analysis of this project will be consistent with the existing Forest Plan for the Mark Twain National Forest. Under regulations of the National Environmental Policy Act (40 CFR 1506.1), the Forest Service can take action while work on a Forest Plan revision is in progress because a programmatic Environmental Impact Statement for the existing Forest Plan already covers the actions. Additionally, decisions on this project will not prejudice the ultimate decision of the Forest Plan revision effort. Impacts of the Forest Plan revision in this project area will be disclosed in the assessment for this project.

### Proposed Actions

The proposed action is to maintain and improve glade and savanna ecosystems by prescribed burning approximately 6,971 acres every 3 to 5 years and reduce the amount of encroaching eastern red cedar on approximately 3,743 acres by mechanical removal. Cedar will be commercially removed where feasible or thinned by Forest Service personnel. Prescribed burning activities will be conducted on two separate burn units either on the same day or at different times of the year depending on project accomplishments, fuel and weather conditions, and resources available. Connected actions include approximately 5 miles of hand and dozer fireline construction and temporary roads for cedar removal where needed.

## **IV. DECISION TO BE MADE**

The District Ranger of the Ava/Cassville/Willow Springs Ranger District is the official responsible for making a decision on this project. The decision to be made from this analysis is whether or not to implement the project as proposed or an alternative, based on the ability of the alternative chosen to effectively address the ecosystem health, wildlife habitat and hazard fuels in an environmentally and fiscally responsible manner and in response to issues and concerns generated internally or by the general public. The analysis will compare alternatives and potential environmental impacts and the ability to limit impacts. Based on the analysis, the Deciding Official must decide whether or not to proceed with a specific action. If an action alternative is selected, the decision may include mitigation measures in addition to the Forest Plan Standards and Guidelines.

The decision is not one of land allocation, nor is the analysis intended to look at every possible combination of activities. The scope of the decision will be confined to a reasonable range of alternatives that will meet the project purpose and need.

## **V. ADDITIONAL INFORMATION**

Information, photos and maps on the management activities described in this document is located on the Internet at: [www.fs.fed.us/r9/marktwain/projects/project](http://www.fs.fed.us/r9/marktwain/projects/project). We invite you to comment on this proposal before the analysis has been completed and a final decision has been made. Please provide site-specific comments that are useful in helping us analyze this proposed project. Substantive comments are required. These are comments that are within the scope of the proposed action, specific to the proposed action, have direct relationship to the proposed action and include

supporting reasons why the comments should be considered. Individual and organizations desiring eligibility to appeal must provide the following information.

1. Name and address
2. Title of this project
3. Substantive comments on the proposed action, along with supporting reasons that should be considered in reaching a decision; and
4. Signature or other verification of identity upon request

# BRUSHY CREEK AND CLAYTON RIDGE PRESCRIBED FIRE AND CEDAR MANAGEMENT PROJECT

You are invited to comment on this proposal. If you have concerns specific to this project, or if you desire to be kept informed, please complete this form and mail it to the address listed below. You may also respond electronically to the following email address: [comments-eastern-mark-twain-ava@fs.fed.us](mailto:comments-eastern-mark-twain-ava@fs.fed.us) (subject line: Brushy Creek). If you have any questions, please contact Brian Davidson at (417) 683-4428.

Please return your comments by July 5, 2004.

<i>Name:</i>
<i>Address:</i>
<i>Phone #:</i>

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# CLAYTON RIDGE AND BRUSHY CREEK PRESCRIBED FIRE AND CEDAR MANAGEMENT PROJECT

